

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An image processing method for carrying out image processing on an image, the image processing method comprising the steps of:

selecting an area in the image, such that the image includes a selected image area and a non-selected image area;
and

adjusting at least one of: density of the image at the selected image area based on density information of an-part of the non-selected area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding part of the non-selected image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding part of the non-selected image area so as to compensate for an effect of color of the surrounding part of the non-selected image area on visual perception of the color of the selected image area.

2. (Currently Amended) An image processing apparatus for carrying out image processing on an image, the image processing apparatus comprising:

selecting means for selecting an area in the image, such that the image includes a selected image area and a non-selected image area; and

adjusting means for adjusting at least one of: density of the image at the selected image area based on density information of an part of the non-selected area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding part of the non-selected image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding part of the non-selected image area so as to compensate for an effect of color of the surrounding part of the non-selected image area on visual perception of the color of the selected image area.

3. (Currently Amended) A computer-readable recording medium storing a program to cause a computer to execute a method of carrying out image processing on an image, the program comprising the procedures of:

selecting an area in the image, such that the image includes a selected image area and a non-selected image area;
and

adjusting at least one of: density of the image at the selected image area based on density information of ~~an~~ part of the non-selected area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding part of the non-selected image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding part of the non-selected image area so as to compensate for an effect of color of the surrounding part of the non-selected image area on visual perception of the color of the selected image area.

4. (Currently Amended) An image processing apparatus for carrying out image processing on an image, the image processing apparatus comprising:

a selector selecting an area in the image, such that the image includes a selected image area and a non-selected image area; and

an adjustor adjusting at least one of: density of the image at the selected image area based on density information of ~~an~~

part of the non-selected area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding part of the non-selected image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding part of the non-selected image area so as to compensate for an effect of color of the surrounding part of the non-selected image area on visual perception of the color of the extracted image area.

5. (Currently Amended) The image processing method of claim 1, further comprising:

designating the part of the non-selected image area surrounding the selected image area as a concentric area in the image excluding the selected image area.

6. (Currently Amended) The image processing method of claim 1, further comprising:

determining the surrounding part of the non-selected image area such that the surrounding part of the non-selected image area has a radius of 3 times a radius of the selected image area.

7. (Currently Amended) The image processing method of claim 1, further comprising:

dividing the surrounding part of the non-selected image area into sub areas; and

calculating an average pixel density of each sub area.

8. (Currently Amended) The image processing method of claim 1, further comprising:

calculating density and/or color information of the surrounding part of the non-selected image area.

9. (Previously Presented) The image processing method of claim 11, wherein:

the selecting step selects a flesh area of the face area of the figure in the image as the selected image area, the adjusting step adjusting at least one of density and color of the image at the flesh area.

10. (Currently Amended) An image processing method for carrying out image processing on an image, the image processing method comprising the steps of:

selecting an area in the image, such that the image includes a selected image area and a non-selected image area;
and

adjusting a density of the image at the selected image area based on density information of an-part of the non-selected area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding part of the non-selected image area on visual perception of the density of the selected image area.

11. (Previously Presented) The image processing method of claim 1, wherein the selecting step selects a face area of a figure in the image as the selected image area.

12. (Currently Amended) The image processing method of claim 1, wherein the adjusting step adjusts the density of the image by:

increasing the density of the selected image area if the density of the surrounding part of the non-selected image area is higher than the selected image data; and

decreasing the density of the selected image area if the density of the surrounding part of the non-selected image area is lower than the density of the selected image area.

13. (Currently Amended) The image processing method of claim 12, wherein the adjusting step adjusts the density of the image by determining a new density K_{new} of the selected image area according to:

$$K_{\text{new}} = K + \beta(Q-K),$$

where

K = density of the selected image area before the adjusting is performed;

Q = density of the surrounding part of the non-selected image area; and

β = predetermined function, which generates a negative value when $K > Q$, and generates a positive value when $K < Q$.

14. (Currently Amended) The image processing method of claim 12, wherein the adjusting step adjusts the density of the image by determining a new density K_{new} of the selected image area according to:

$$K_{\text{new}} = K + \alpha \cdot \beta(Q-K),$$

where

K = density of the selected image area before the adjusting is performed;

Q = density of the surrounding part of the non-selected
image area;

α = a function whose value changes according to the color
of the selected image area; and

β = a predetermined function, whose value is negative value
when $K > Q$, and whose value is positive when $K < Q$.

15. (New) An image processing method for carrying out image
processing on an image, the image processing method comprising the
steps of:

inputting an image having a plurality of pixel signal
values;

selecting an area in the image;

adjusting pixel signal values in the selected image area in
order to adjust at least one of: density of the image at the
selected image area based on density information of an area in
the image surrounding the selected image area so as to
compensate for an effect of density of the surrounding image
area on visual perception of the density of the selected image
area; and color of the image at the selected image area based on
color information of the surrounding image area so as to
compensate for an effect of color of the surrounding image area

on visual perception of the color of the selected image area;
and

outputting the image including the adjusted pixel signal values.

16. (New) An image processing apparatus for carrying out image processing on an image, the image processing apparatus comprising:

inputting means for inputting an image having a plurality of pixel signal values;

selecting means for selecting an area in the image;

adjusting means for adjusting pixel signal values in the selected image area in order to adjust at least one of: density of the image at the selected image area based on density information of an area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding image area so as to compensate for an effect of color of the surrounding image area on visual perception of the color of the selected image area; and

outputting means for outputting the image including the adjusted pixel signal values.

17. (New) A computer-readable recording medium storing a program to cause a computer to execute a method of carrying out image processing on an image, the program comprising the procedures of:

inputting an image having a plurality of pixel signal values;

selecting an area in the image;

adjusting pixel signal values in the selected image area in order to adjust at least one of: density of the image at the selected image area based on density information of an area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding image area so as to compensate for an effect of color of the surrounding image area on visual perception of the color of the selected image area; and

outputting the image including the adjusted pixel signal values.

18. (New) An image processing apparatus for carrying out image processing on an image, the image processing method comprising the steps of:

an input inputting an image having a plurality of pixel signal values;

a selector selecting an area in the image;

an adjustor adjusting pixel signal values in the selected image area in order to adjust at least one of: density of the image at the selected image area based on density information of an area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding image area on visual perception of the density of the selected image area; and color of the image at the selected image area based on color information of the surrounding image area so as to compensate for an effect of color of the surrounding image area on visual perception of the color of the selected image area; and

an output outputting the image including the adjusted pixel signal values.

19. (New) An image processing method for carrying out image processing on an image, the image processing method comprising the

steps of:

inputting an image having a plurality of pixel signal values;

selecting an area in the image;

adjusting pixel signal values in the selected image area in order to adjust a density of the image at the selected image area based on density information of an area in the image surrounding the selected image area so as to compensate for an effect of density of the surrounding image area on visual perception of the density of the selected image area; and

outputting the image including the adjusted pixel signal values.